Diego Marcos

Software Engineer

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Education

**Sep 2006
Jun 2008**

MSc in Computer Science (DEA)
IMAG - Université Joseph Fourier, Grenoble, France
Dissertation: "Optimizing the call chain between interpreted and compiled C++" (Advisor: Axel Naumann, CERN)

**Sep 2005
Aug 2006**

BSc in Computer Science
ENSIMAG - Institut National Polytechnique de Grenoble, France
Dissertation: "Development of a visualization interface for a Geographic Information System based on OpenGL"

**Sep 1999
Jun 2005**

BSc in Software Engineering
Facultad de Informática - Universidad Politécnica Madrid, Spain

Work Experience

**Feb 2011
Present**

University of Washington (Seattle, United States)
JavaScript , HTML 5, UX, Google Earth, Web Applications, Data Analysis

Research Developer working in a NASA funded position to develop web based collaborative tools for visualization and analysis of astronomical data

**Feb 2009
Feb 2011**

European Southern Observatory (Munich, Germany)
C++, Qt, Data Visualization, User Interfaces, Cross platform software

Worked on the development of VirGO, The Visual Browser for the ESO Science Archive Facility
Worked on Stellarium, The award winner open source cross platform 3D planetarium. I've been in charge of the MacOSX version: Release, support and debugging
Worked on SVMT, The Survey Monitoring Tool for VISTA, The world largest survey telescope. Visual tool to monitor the observations of surveys telescopes. I was in charge of the User Interface design and implementation based on Qt. I also participated in the backend infrastructure that collects and pre-process astronomical observations data

**Nov 2008
Feb 2009**

Swiss Tropical Institute (Basel, Switzerland)
C++, Simulation Models, Distributed Computing

Worked on MalariaControl, Project granted by the Bill and Melinda Gates Foundation that makes use

of network computing for stochastic modeling of the malaria clinical epidemiology. Software originally developed in C. I was in charge of restructuring and reimplementing the platform in C++

Jan 2007
Mar 2008

CERN (Geneva, Switzerland)
C++, Compilers Design, Data Analysis

Worked on the development of ROOT Data Analysis Framework. I worked in the backend of CINT (a C++ interpreter) implementing multiple internal optimizations in the call chain between compiled and interpreted code

Feb 2006
Aug 2006

Sagem Défense Sécurité (Paris, France)
Java, OpenGL, Geographical Information Systems

Internship. Worked on the optimization of maps rendering for a 3D Geographical Information System. Reimplementation of the rendering engine making use of a OpenGL binding for Java

Feb 2005
Aug 2005

Universidad Politécnica Madrid (Madrid, Spain)
Usability, Web Standards

Worked on Web Usability and Accessibility Study for the Spanish Ministry of Economy and Treasury. I worked on the redesign and adaptation of a website to the new usability regulations for the Spanish Ministry of Economy and Treasury. I carried out a usability study of the previous web portal and helped to design and implement the new site based on the obtained conclusions. I conducted laboratory tests with real users, implemented the new website and presented on site to the department in the ministry

Sep 2003
Feb 2005

CETTICO, Research laboratory at Universidad Politécnica Madrid(Madrid, Spain)
C++, OpenGL, Artificial Inteligence

Volunteer Research Assistant. I worked on the development of a framework for the evaluation of automatic learning algorithms in 3D environments. Project aimed at the autonomous guidance of aircrafts and funded by the Spanish Ministry of Science and Technology

Feb 2001
Jun 2003

Deanship of the Universidad Politécnica Madrid(Madrid, Spain)
Web Design, HTML, PHP

Design and implementation of the central web site of the university and development of administrative web tools based on PHP

Programming Languages and Technologies

Operating Systems: Linux, Unix, MacOS, iOS, Windows

Programming Languages:
Comfortable with: C++ / C.
Familiar with: Java, JavaScript, Python, Objective C, Haskell

Libraries: Qt, OpenGL, jQuery

Tools: Qt Creator, XCode, Coda, Eclipse, Mercurial, Bazaar, GDB, Adobe Photoshop, Latex, ROOT

Last updated: April 4, 2011